

Description

The Enhanced AN/TPQ-36 (EQ-36) radar system is an enhancement of the aging Legacy Firefinder radar system. The EQ-36 will provide improved operational and physical functionality over the existing AN/TPQ-36(V) 8 radar system. This radar will detect in-flight projectiles, determine and communicate firing point locations of various indirect fire threats with a high degree of accuracy, low false alarm rates and will classify hostile weapon locations at greater ranges and provide an improved coverage pattern to permit more effective detection and counter-battery actions.



PM Radars
SFAE-IEW&S-NV-R
Bldg. 1201 East, 3rd Floor
Fort Monmouth, New Jersey 07703



FIREFINDER RADAR ENHANCED AN/TPQ-36



PM
NV RSTA



Characteristics

The EQ-36 is an active phased-array radar to locate various indirect fire threats and configured on two Lightweight Medium Tactical Vehicle (LMTV) (highly mobile/transportable) and integrated with Army Battle Command Systems (ABCS). The EQ-36 counterfire target acquisition allows for precise location of hostile indirect fire weapons in support of High Intensity Combat (HIC) thru Sustainment and Stability Operations (SASO) with an improved false location rate. The EQ-36 has flexible coverage mode selection allowing for a long-range 90° sector coverage or a continuous 360° coverage. The EQ-36 is a transportable system via C-130 air transport roll-on/roll-off, rail, water, and highway. The EQ-36 is self-transport capable in convoy and allows rapid emplacement & displacement with minimal crew; and allows for communication on the move. The EQ-36 has increased reliability and maintainability and is designed for producibility, growth and enhancement capability.

Special Features

The EQ-36 is designed for emplacement by a crew of four soldiers and has Built-In-Test for prognosticating, detecting, and isolating faults to the Line Replaceable Unit (LRU) level along with interactive Embedded Training (ET) resident in the Remote Control Display Unit (RCDU). Interactive Electronic Technical Manual (IETM) is accessible via the RCDU and enhances operators ability to perform system level maintenance. The embedded trainer covers operation procedures & operation scenarios. The system is capable of automatically & manually performing Department of Teacher Education and Development (DTED) height correction. The EQ-36's RCDU will display raster map, tactical map & overlays of friendly & enemy locations/boundaries. EQ-36 provides zonal control of 1000 zones with out restriction on placement and will process & transmit ≥ 100 target reports per minute to external source. The system also digitally communicates with ABCS and reports tactical data while maneuvering as well data recording & playback, PMFL status, & war diary.

Capability/Improvements

The EQ-36 system expands basic radar capabilities against the variety of indirect fire threats in a 360° capability and has multiple target capability in 90° & 360° modes of operation. The systems Probability Of Location $\geq 85\%$ in clutter free and clutter environments of hostile weapon location accuracy and will locate and classify projectiles.

